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EXAMINER

LEE, PHILIP C

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/877,977	Applicant(s) DOUGLIS ET AL.	
	Examiner Philip C. Lee	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. This action is responsive to the amendment and remarks filed on December 27, 2005.
2. Claims 1 and 3-16 are presented for examination.
3. Claims 4-5 and 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Rejections – 35 USC 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

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international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1, 3, 6-8 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Brendel, U.S. Patent 6,772,333 (hereinafter Brendel).

8. Brendel was cited in the last office action.

9. As per claim 1, Brendel taught the invention as claimed of operating a content distribution network switch in a content distribution network comprising the steps of:

receiving a packet from a client associated with a secure communication connection (col. 5, lines 14-21; col. 9, line 63-col. 10, line 4);

extracting information from the packet to identify a cache server in the content distribution network that maintains state information on the secure communication connection (col. 5, lines 14-21; col. 9, line 63-col. 10, line 4; col. 2, lines 29-39), wherein the information extracted from the packet comprises a session identifier used to compute a label identifying the cache server (col. 4, lines 26-40; col. 7, lines 9-21; col. 8, lines 12-17); and

directing the packet towards the identified cache server (col. 5, lines 14-21; col. 9, line 63-col. 10, line 4).

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10. As per claim 11, Brendel taught the invention as claimed for operating a cache server in a content distribution network comprising the steps of:

selecting a session identifier that may be utilized by a content distribution network switch to direct packets associated with a secure communication connection to the cache server (col. 7, lines 47-60; col. 8, lines 13-42; col. 11, lines 13-26);
negotiating a secure communication connection with a client (col. 7, lines 47-60; col. 8, lines 13-42; col. 11, lines 13-26); and
maintaining state information for said secure communication connection by said cache server (col. 8, lines 13-31).

11. As per claims 3 and 12, Brendel taught the invention as claimed in claims 2 and 11 above. Brendel further taught that the label identifying the cache server is computed from the session identifier by a function $f(\text{SID})$ where SID is the session identifier (col. 4, lines 26-40).

12. As per claim 6, Brendel taught the invention as claimed in claim 1 above. Brendel further taught that the information extracted from the packet comprises a client address which is associated with a cache server (col. 2, lines 35-39).

13. As per claim 7, Brendel taught the invention as claimed in claim 6 above. Brendel further taught that associations between client address and cache server are stored in a table (col. 2, lines 32-35; col. 7, lines 66-67).

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14. As per claim 8, Brendel taught the invention as claimed in claim 7 above. Brendel further taught that the secure communication connection is a Secure Sockets Layer connection (col. 3, lines 58-61; col. 7, lines 26-29).

Claim Rejections – 35 USC 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 9-10 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brendel in view of Oki et al, U.S. Patent 6,735,206 (hereinafter Oki).

17. Oki was cited in the last office action.

18. As per claim 9, Brendel taught the invention as claimed in claim 6 above. Brendel did not teach using a hash function. However, Oki taught that associations between client address and cache server are generated by a hash function (col. 7, lines 34-59).

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19. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teaching of Brendel and Oki because Oki's teaching of generating association using hash function would increase the efficiency of Brendel's system by allowing packets to be mapped to the identified server node within a clustered computing system.

20. As per claim 10, Brendel and Oki taught the invention substantially as claimed in claim 9 above. Brendel further taught that the secure communication connection is a Secure Sockets Layer connection (col. 3, lines 58-61; col. 7, lines 26-29).

21. As per claim 15, Brendel taught the invention substantially as claimed for operating a cache server in a content distribution network comprising the steps of:

negotiating a secure communication connection with a client (col. 4, lines 44-59; col. 8, lines 13-42);

creating state information necessary for reuse of the secure communication connection with the client (col. 4, lines 44-59; col. 8, lines 13-42);

22. Brendel did not teach sharing state information with other cache servers to which client requests may be redirected. However, Oki taught that sharing the state information with other cache servers in the content distribution network to which client requests may be redirected (col. 7, lines 56-col. 8, lines 13).

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23. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teaching of Brendel and Oki because Oki's teaching of sharing state information would increase reliability of Brendel's system by allowing other cache servers to continue the session of a failed server (col. 8, lines 2-3).

24. As per claim 16, Brendel and Oki taught the invention substantially as claimed in claims 15 above. Brendel further taught that the secure communication connection is a Secure Sockets Layer connection (col. 3, lines 58-61; col. 7, lines 26-29).

25. Applicant's arguments with respect to claims 1 and 3, 6-12 and 15-16, filed 12/27/05, have been fully considered but are not deemed to be persuasive.

26. Applicant's arguments with respect to claims 4-5 and 13-14, filed 12/27/05, have been fully considered and are persuasive. The rejection of claims 4-5 and 13-14 has been withdrawn.

27. In the remark applicant argued that

(1) Brendel fails to teach a cache server in the content distribution network that maintains state information.

(2) Brendel fails to teach a cache server.

28. In response to point (1), Brendel taught a cache sever (web server) in the content distribution network that maintains state information (SSL session ID) (col. 4, lines 32-33, 51-

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60). Specifically, Brendel taught client and the web server establish a SSL session by sending a unique server-generated SSL session ID to the client (col. 4, lines 27-33). Brendel further taught all subsequent connections that belong to this session include the SSL session ID. If the server's SSL module remembers this SSL session ID, it accepts this connection without any further establishment of trust (col. 4, lines 56-60). This means the cache server (web server) must maintains the state information (i.e. remembers the SSL session ID) in order to accept subsequent connection from a trust client.

29. In response to point (2), Brendel taught web server assembles web page or other resource and sends the web pages to the clients (col. 4, lines 3-6; col. 5, lines 49-50). It is inherent that the web server must included cache (i.e. memory of a server) for storing the web page sent to the client. Therefore, Brendel taught a cache server (i.e. server with cache). Furthermore, the web pages stored in the memory of the web server can be frequently accessed by the client. Thus, the web server performs the same functionality as a cache server.

CONCLUSION


30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bowman-Amuah, U.S. Patent 6,842,906, disclosed a web server that can store web page in a cache (memory of a server) [i.e. a web server can be consider as a cache server].

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31. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Lee whose telephone number is (571)272-3967. The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every other Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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